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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,057	09/29/2000	Masaharu Tsuboi	0505-0692P	9453

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EXAMINER

MULLINS, BURTON S

ART UNIT PAPER NUMBER

2834

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,057

Applicant(s)

TSUBOI, MASA HARU

Examiner

Burton S. Mullins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004 and 04 November 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 8-14, 19 and 20 is/are allowed.
6) ☒ Claim(s) 1, 2, 4 and 15-18 is/are rejected.
7) ☒ Claim(s) 3 and 5-7 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 2, 4, 15-16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 2, line 3, the phrase “not overlapped” appears consecutively. In claims 4 and 18, recitation “the second control board” lacks antecedent basis.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakao et al. (WO 99/16654). Wakao teaches a motor-assisted drive unit for a vehicle comprising an electric motor for power steering including: a motor 10 disposed in a casing 21/22 and having shaft 11 (Fig.2) for providing power to a drive wheel (via rack-and-pinion arrangement in Fig.1); and a first control board 140A on which control devices are mounted (Fig.13), the first control board mounted perpendicular to the shaft 11 (Fig.13) and having a flat surface directly attached to an inner wall of the casing (Fig.13), part of the first control board extending to a position overlapped with the motor (Fig.13), with a first region overlapping the motor and a

second region not overlapped with the motor (see the marked copy of Fig.13 on p.5 of the previous action of August 4, 2003).

Regarding claim 17, a control device, e.g., CPU 142 or relay 45 (Fig.14), are disposed on one side of the motor.

Allowable Subject Matter

4. Claims 2, 4, 15-16 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Regarding claim 2, in Wakao, since the second control board 140B appears to be completely overlapped by the motor 10 (Fig.13), Wakao does not teach a "second region [of the second control board] not overlapped with said motor". Neither does Wakao teach that the processing unit is mounted on a first region of the second control board which overlaps with the motor.

5. Claims 3 are 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claim 3, in Wakao (Fig.13), the region not overlapped by the motor 10 is clearly much smaller in area than the region overlapped by the motor 10.

6. Claims 8-14 and 19-20 are allowed. Regarding claim 8, Wakao does not teach a second control board with a larger surface than the first control board and entirely overlapping the first control board. Nishikawa discloses all of the claimed elements including respective first and second boards 13 and 1 (Fig.1), except for a motor which provides power to a drive

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wheel of a vehicle. Nishikawa's motor appears to be a capstand or spindle motor. The shaft 5 (Fig.5) is not connected to a drive wheel of a vehicle. Further, there is no motivation to modify Nishikawa's motor with Wakao's power steering motor to provide a drive wheel for a vehicle.

Regarding claim 20, since the second control board 140B appears to be completely overlapped by the motor 10 (Fig.13), Wakao does not teach a "second region [of the second control board] not overlapped with said motor". Hence it follows that Wakao also does not teach "at least one control device...mounted so as not to overlap with the motor." Nishikawa, as with regard to claim 8 above, teaches a capstand or spindle motor, not a motor for providing power to a drive wheel of a vehicle. Also, there is no motivation to modify Wakao with Nishikawa's first and second board structure such that "at least one control device on each of the control boards is mounted so as not to overlap with the motor."

Response to Arguments

7. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be



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reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
March 24, 2004